

REMARKS

This application has been carefully reviewed in light of the Office Action mailed on June 18, 2003. Claims 1, 14, 38, 124 and 125 have been canceled. Applicants respectfully request reconsideration of the above-referenced application in light of the amendments and following remarks.

Claims 1 and 14 stand rejected under 35 U.S.C. § 102 (e) as allegedly being anticipated by Okutoh et al. (U.S. Patent No. 6,201,271) ("Okutoh I"). Reconsideration is respectfully requested.

Okutoh I fails to anticipate the present invention. In particular, Okutoh I does not teach or suggest "an electrode having at least one layer comprising of platinum-rhodium material and at least one non-oxide layer comprising platinum material formed on top and in contact with the platinum-rhodium layer," as claim 1 recites (emphasis added), nor "a lower electrode comprising at least two layers, said first layer comprising of platinum-rhodium material and a second non-oxide layer comprising platinum material on top of the platinum-rhodium layer," as claim 14 recites (emphasis added).

Okutoh I is directed to forming an upper electrode and not a lower electrode as recited by claim 14. Further, Okutoh I teaches an alloy oxide film 15. The alloy oxide film 15 consists of platinum, rhodium, and oxygen in a ratio of 70:15:15 (Col. 6, lines 36-39). In contrast, Applicants claim an electrode with a "non-oxide layer comprising platinum material." (emphasis added). Accordingly, the rejection of claims 1 and 14 based on Okutoh I should be withdrawn.

Claims 1, 14 and 124-125 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Okutoh et al. (U.S. Patent No. 6,180,974) ("Okutoh II"). Reconsideration is respectfully requested.

Okutoh II fails to anticipate the present invention. For similar reasons described above, Okutoh II does not teach or suggest "an electrode having at least one layer comprising of platinum-rhodium material and at least one non-oxide layer comprising

platinum material formed on top and in contact with the platinum-rhodium layer,” as claim 1 recites (emphasis added), or “a lower electrode comprising at least two layers, said first layer comprising of platinum-rhodium material and a second non-oxide layer comprising platinum material on top of the platinum-rhodium layer,” as claim 14 recites (emphasis added), or “an electrode having at least one layer comprising platinum-rhodium material and at least one non-oxide layer comprising platinum material on top of and in contact with the platinum-rhodium layer,” as claims 124 and 125 recite (emphasis added).

Okutoh II teaches that a PtRhOx film 229 is formed on top and in contact with the PtRh film. In Fig. 16, Okutoh II teaches that the lower electrode consists of “a lowermost-layer electrode 228 consisting of the PtRh film, an intermediate-layer lower electrode 229 consisting of the PtRhOx film, and an uppermost-layer lower electrode 230 consisting of the Pt film.” (Col. 28, lines 42-45). Okutoh II does not teach or suggest that a non-oxide layer comprising platinum is formed on top and in contact with the platinum-rhodium layer. Accordingly, the rejection of claims 1, 14 and 124-125 based on Okutoh II should be withdrawn.

Claims 1 and 14 stand rejected under 35 U.S.C. § 102 (e) as allegedly being anticipated by Desu. Reconsideration is respectfully requested.

Desu fails to anticipate the present invention. Desu does not teach or suggest “an electrode having at least one layer comprising of platinum-rhodium material and at least one non-oxide layer comprising platinum material formed on top and in contact with the platinum-rhodium layer,” as claim 1 recites (emphasis added), nor “a lower electrode comprising at least two layers, said first layer comprising of platinum-rhodium material and a second non-oxide layer comprising platinum material on top of the platinum-rhodium layer,” as claim 14 recites (emphasis added).

Moreover, as indicated by the Office Action, Desu teaches “in figure 1C a a capacitor, comprising: an electrode having at least one layer 100 consisting of platinum-rhodium material and at least one layer 110 comprising PtRhO material on top of the

platinum-rhodium layer 100.” (Office Action, pg. 5) (emphasis added). Desu does not teach a non-oxide layer on top of the platinum-rhodium layer. Accordingly, the rejection of claims 1 and 14 based on Desu should be withdrawn.

Claims 1-54 and 124-125 stand allegedly rejected under the judicially doctrine of obviousness double-patenting over claims 1-54 of Agarwal. Reconsideration is respectfully requested.

Out the outset, Applicants respectfully submit that claims 1, 4-15, 17-54 and 124-125 are pending. Claims 2, 3 and 16 were previously canceled. Moreover, Applicants respectfully disagree with the Office Action’s contention that the claims of this case are obvious over the claims in Agarwal. The purportedly conflicting claims are not identical nor would it have been obvious to one of ordinary skill in the art to substitute a platinum material for the lower electrode of Agarwal with other metals or other compounds comprising platinum material or platinum-rhodium material as a design alternative. It is obvious only when viewed in light of Applicants’ own specification. The motivation to use other materials is found in Applicants’ own specification on page 12 and not the prior art.

For example, claim 1 recites “an electrode having at least one layer comprising of platinum-rhodium material and at least one non-oxide layer comprising platinum material formed on top and in contact with the platinum-rhodium layer, wherein the layer consisting of platinum-rhodium comprises approximately 3 to approximately 40 percent rhodium and approximately 60 to approximately 97 percent platinum.” Conversely, Agarwal’s claim 1 recites “an electrode having a platinum-rhodium layer and a layer consisting of platinum material.” Claim 1 is not identical nor obvious to Agarwal’s claim 1. Claims 4-13 depend from claim 1 and are similarly not identical nor obvious to Agarwal’s claims 4-13.

Claim 14 recites “a lower electrode comprising at least two layers, said first layer comprising of platinum-rhodium material and a second non-oxide layer comprising platinum material on top of the platinum-rhodium layer, wherein the layer consisting of

platinum-rhodium is an alloy comprising approximately 3 to approximately 40 percent rhodium.” Conversely, Agarwal’s claim 14 recites “a lower electrode having a platinum-rhodium layer and layer consisting of platinum material.” Therefore, claim 14 is not identical nor obvious to Agarwal’s claim 14. Claims 15 and 17-37 depend from claim 14 and are not identical nor obvious to Agarwal’s claims 15 and 17-37.

Similarly, claim 38 recites “a lower electrode having a layer comprising titanium material, an alloy layer on top of the layer comprising titanium, wherein the alloy layer consists of approximately 60 to approximately 97 percent platinum and approximately 3 to approximately 40 percent rhodium, and a non-oxide layer comprising platinum material on top of the alloy layer.” Conversely, Agarwal’s claim 38 recites a “lower electrode having a titanium layer . . . and a platinum layer.” Therefore, claim 38 is not identical nor obvious to Agarwal’s claim 38. Claims 39-54 depend from claim 38 and are similarly not identical nor obvious to Agarwal’s claims 39-54.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,

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